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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,893	01/15/2004	Clifford M. Bryant	015058-003011US	6980

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EXAMINER	
ANDERSON, REBECCA L	

ART UNIT	PAPER NUMBER
1626	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/758,893	BRYANT ET AL.	
	Examiner	Art Unit	
	Rebecca L. Anderson	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-17 and 20-22* is/are pending in the application.

4a) Of the above claim(s) *9-13 and 20-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-8 and 14-17* is/are rejected.

7)☒ Claim(s) *1, 7 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-3, 5-17 and 20-22 are currently pending in the instant application. Claims 1, 7 and 8 are objected and claims 1-3, 5-8 and 14-17 are rejected. Claims 9-13 and 20-22 are withdrawn from consideration as being for non-elected subject matter.

Response to Amendment and Arguments

Applicants' amendment and arguments filed 20 December 2005 have been entered into the application and fully considered. Applicants' amendments have overcome the objection to claims 3, 14, 15, 16 and 19 (cancelled) as containing informalities. Applicants' amendments have overcome the objection to claims 15, 17 and 18 (cancelled) as being improper form. The cancellation of claim 19 has overcome the objection to claims 7 and 19 as being duplicates. Applicants' amendments have overcome the objection to claims 2-6 and 14-19 (claims 4, 18 and 19 are cancelled) as containing non-elected subject matter, however, claims 1, 7 and 8 still contain non-elected subject matter and the objection is maintained. Applicants' amendments have also overcome the 35 USC 102(e) rejection of claims 1 and 8 as being anticipated by US Patent No. 6,395,897, however, the amendment has necessitated the new 35 USC 103(a) rejection of claims 1 and 8 as being obvious over US Patent No. 6,395,897. Applicants' amendments have overcome the 35 USC 102(e) rejection of claims 1-4 and 8 as being anticipated by US Patent No. 6,353,017, however, the amendment has necessitated the new 35 USC 103(a) rejection of claims 1 and 8 as being obvious over US Patent No. 6,395,897.

Applicants' have requested deferral of the obvious type double patenting rejection, however, as the rejection is appropriate, the rejection is maintained.

In regards to the 35 USC 112 1st paragraph rejection, applicants' arguments have been fully considered but they are not persuasive. Applicants traverse this rejection because one skilled in the art having read the present specification and claims would be able to make and use the full scope of present inventions without engaging in undue experimentation. Applicant argues that the previous action fails to provide any facts indicating a reason to doubt that applicants' disclosure would enable those skilled in the art to practice the claimed invention and appears to rely on the fact that the specification provides no examples of preparation of the disputed derivatives or isomers. Furthermore, applicant argues that any experimentation necessary would be routine. These arguments are not persuasive as one skilled in the art would have to engage in undue experimentation to practice the claimed invention as the specification does not provide enablement for the N-oxide derivatives, prodrug derivatives, protected derivatives, individual isomers and mixtures of isomers of the compounds of the formulas (I) and (II). Specifically, the facts provided are the definitions provided in the specification for these terms and the definitions found in the art that an isomer is any compound having the same composition, including constitutional isomers, which are compounds whose atoms are connected differently, and stereoisomers. Constitutional isomers can contain different functional groups in varying positions. Prodrugs are inactive substances that are converted to a drug within the body by enzymes or other chemicals. Prodrugs can be formed by various mechanisms and vary depending on the

functional groups present in the parent compound, i.e. different prodrugs would arise from parent compounds containing varying functional groups, such as a carboxylic acid, an alcohol or an amine, all of which would require differing mechanisms. The term "derivative" found in the claims is defined as a compound, usually organic obtained from another compound by a simple chemical process or an organic compound containing a structural radical similar to that from which it is derived (Hackh's chemical dictionary, 1972). One of skill in the art would have to engage in undue experimentation to prepare, for example, constitutional isomers, which has atoms that are connected differently than the compounds of formulas (I) and (II), to prepare prodrugs which are formed by various mechanisms and vary depending on the functional groups, and to prepare derivatives of the compounds of formulas (I) and (II), to prepare derivatives of N-oxides, and prepare derivatives of prodrugs as the term derivative is only known to be obtained from another compound and is similar. The definitions provided by applicants, for example on pages 33-37, include constitutional isomers and use the term "derivative" to define many of the terms. Therefore, the experimentation required would not be considered routine even though the level of the skill in the pharmaceutical arts is high, because it would require undue experimentation of one of ordinary skill in the art to prepare any isomer, derivative, or prodrug of the formulas I and II as instantly claimed since an isomer of the compounds of the formula I and II need only have the same composition of atoms, not necessarily the same order of atoms and can have varying functional groups in varying positions. Prodrugs would also require undue experimentation to prepare any covalently bonded compound that would release the

active parent drug since prodrugs are formed by varying mechanisms and depend on the functional groups of the parent compound. The only guidance present in the instant specification is for the compounds of the formulas I and II, their stereoismers and pharmaceutically acceptable salts thereof. There is no guidance or working examples present for constitutional isomers, prodrugs or derivatives of the formulas I or II. Therefore, the enablement rejection is maintained.

In regards to the 35 USC 103(a) rejection of claim 14 as being obvious over US Patent No. 6,395,897, applicants' arguments and amendments have been fully considered but they are not persuasive. While applicant has argued that the amendment to the claim to exclude R4 as C1-6alkyl substituted with cyano would overcome the rejection and the reference would not render the claimed invention obvious, it is noted that the rejection was also towards R4 as hydrogen. Since the prior art discloses the compound of formula II which generically encompasses applicants instantly claimed compounds, since the prior art provides preferences in the form of formula II wherein the position equivalent to R4 is hydrogen and since the prior art provides specific compounds wherein R9 is C(6-12)aryl(C1-6)alkyl, applicants claimed invention is considered obvious. The motivation would be the high expectation of preparing additional compounds which are useful as pharmaceutical compositions for the treatment of autoimmune diseases.

In regards to the 35 USC 103(a) rejection of claims 14-16 as being obvious over US Patent No. 6,353,017, applicants' arguments and amendments have been fully considered but they are not persuasive. Applicant argues that the amendment to the

claims by deleting R9 as unsubstitued alkyl and as (C3-12)cycloalkyl(C0-6)alkyl would overcome the rejection and the reference would not render the claimed invention obvious, it is noted that the rejection was towards R9 as aryl-loweralkyl. Since the prior art discloses the compound of formula I which generically encompasses applicants instantly claimed compounds, since the prior art provides preferences in the form of formula III wherein the position equivalent to R9 can be aryl-lower alkyl and since the prior art provides compounds which differ only by the position R9 and provide preferences towards R9 as benzyl optionally substituted by lower alkyl and halogen, applicants' claimed invention is considered obvious. The motivation would be the high expectation of preparing additional compounds which are useful as pharmaceutical compositions for the treatment of diseases in which which cathepsins are implicated.

Maintained and New Claim Objections

Claims 1, 7 and 8 are objected to as containing non-elected subject matter. Specifically, claims 1 and 8 contain R1 as formula (a) and (b), however, the elected invention is only wherein R1 is formula (a). Claim 7 includes compounds outside of the elected invention, for example, compounds which don't include a morpholine in R11. Claims 1, 7 and 8 presented drawn solely to the elected invention for search and examination as identified in the non-final action, mailed 3/9/2006, would appear free of this objection.

Claim 1 is objected to because of the following informalities: Specifically, claim 1 includes the phrase "R7 is hydrogen or (C1-6)alkyl or as defined below". However, as amended there is no definition of R7 defined below and the phrase should be deleted.

Appropriate correction is required. Furthermore, R7 in the elected invention is only hydrogen or (C1-6)alkyl.

Maintained Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3, 5-8 and 14-17 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the compounds of the formulas (I) and (II), their stereoisomers and their pharmaceutically acceptable salts thereof, does not reasonably provide enablement for the N-oxide derivatives, prodrug derivatives, protected derivatives, individual isomers and mixtures of isomers of the compounds of the formulas (I) and (II). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

In *In re Wands*, 8 USPQ2d 1400 (1988), factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. § 112, first paragraph, have been described. They are:

1. the nature of the invention,
2. the state of the prior art,
3. the predictability or lack thereof in the art,
4. the amount of direction or guidance present,
5. the presence or absence of working examples,
6. the breadth of the claims,
7. the quantity of experimentation needed, and
8. the level of the skill in the art.

The nature of the invention

The nature of the invention is the compounds of the formula I or II and their N-oxide derivatives, protected derivatives, individual isomers and mixtures of isomers, and pharmaceutically acceptable salts thereof.

The state of the prior art and the predictability or lack thereof in the art

The state of the prior art is that an isomer is any compound having the same composition, including constitutional isomers, which are compounds whose atoms are connected differently and stereoisomers. Constitutional isomers can contain different functional groups in varying positions. Prodrugs are inactive substances that are converted to a drug within the body by enzymes or other chemicals. Prodrugs can be formed by various mechanisms and vary depending on the functional groups present in the parent compound, i.e. different prodrugs would arise from parent compounds containing varying functional groups, such as a carboxylic acid, an alcohol or an amine, all of which would require differing mechanisms. The term "derivative" found in the claims is defined as a compound, usually organic obtained from another compound by a simple chemical process or an organic compound containing a structural radical similar to that from which it is derived (Hackh's chemical dictionary, 1972). Therefore, the term "derivative" found in the claims renders the claims indefinite because it is unclear what compounds are being claimed, i.e. what similar radical is found in the derivative of hydroxamic acid of the formula (I) and encompassed by the instant claims

The amount of direction or guidance present and the presence or absence of working examples

The only direction or guidance present in the instant specification is for the compounds of the formulas I and II, their stereoisomers, and pharmaceutically acceptable salts of the compounds. There is no data present in the instant specification for an alternate definition to the term derivative, not the preparation of constitutional isomers, or derivatives of prodrugs or protected derivatives of the instant compounds of the formulas I and II.

The breadth of the claims

The instant breadth of the rejected claims is broader than the disclosure, specifically, the instant claims include any isomer, i.e. any compound with the same number of each atom and any covalently bonded compound that would release the active parent compound along with any compound containing a structural radical similar to that from the compounds of the formulas (I) and (II).

The quantity or experimentation needed and the level of skill in the art

While the level of the skill in the pharmaceutical arts is high, it would require undue experimentation of one of ordinary skill in the art to prepare any isomer, derivative, or prodrug of the formulas I and II as instantly claimed since an isomer of the compounds of the formula I and II need only have the same composition of atoms, not necessarily the same order of atoms and can have varying functional groups in varying positions. The same applies to prodrugs since it would also require undue experimentation to prepare any covalently bonded compound that would release the active parent drug since prodrugs are formed by varying mechanisms and depend on the functional groups of the parent compound. The only guidance present in the instant

specification is for the compounds of the formulas I and II, their stereoismers and pharmaceutically acceptable salts thereof. There is no guidance or working examples present for constitutional isomers, prodrugs or derivatives of the formulas I or II. Therefore, the claims lack enablement and this rejection can be overcome by deleting the phrase "and the N-oxide derivatives, prodrug derivatives, protected derivatives, individual isomers and mixtures of isomers;" from the instant claims.

Maintained Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 5-8 and 14-17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5 and 6 of U.S. Patent No. 6,455,502. Although the conflicting claims are not identical, they are not patentably distinct from each other because: Claims 5 and 6 of US Patent No. 6,455,502 anticipate and therefore render claims 1-8 and 14-19 as rejected under obvious-type double patenting since conflicting claim 5 claims the compounds :

N-[1R-cyanomethylcarbamoyl-2-(2-nitrobenzylsulfanyl) ethyl]morpholine-4-carboxamide ;

N-[1R-cyanomethylcarbamoyl-2-(2-cyanobenzylsulfanyl)ethyl]morpholine-4-carboxamide; ; and

N-[1R-cyanomethylcarbamoyl-2-(2-methylbenzylsulfanyl)ethyl]morpholine-4-carboxamide; and which correspond to

specific compounds found in applicants instant claim 7 and the compounds of claims 1-6 and pharmaceutical compositions of claim 8 wherein R1 is a group of formula (a) wherein X1 is –C(O), R3 and R4 are hydrogen, R5 is hydrogen, R7 is hydrogen, R11 is the group X5X6R18 wherien X5 is the group –C(O), X6 is a bond, R18 is morpholinyl and R9 is the group nitrobenzylsulfanylmethyl, cyanobenzylsulfanylmethyl or 2-methyl benzylsulfanylmethyl and conflicting claim 6 is a pharmaceutical composition of conflicting claim 1, which includes the above mentioned compounds. This anticipates applicants' instant claims since this disclosure of conflicting claims 5 and 6 is fully encompassed by applicants instant claims 1-3, 5-8 and 14-17.

Maintained and New Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

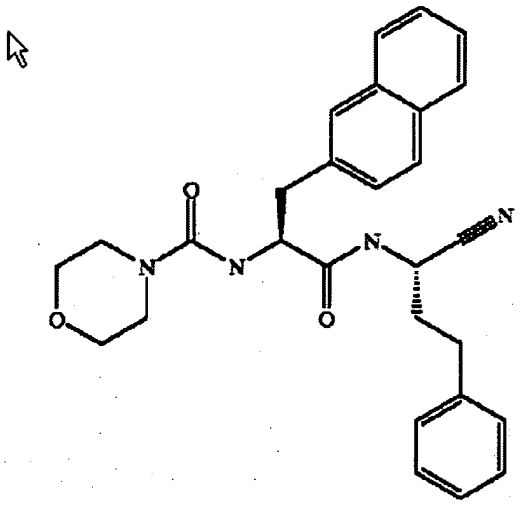
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

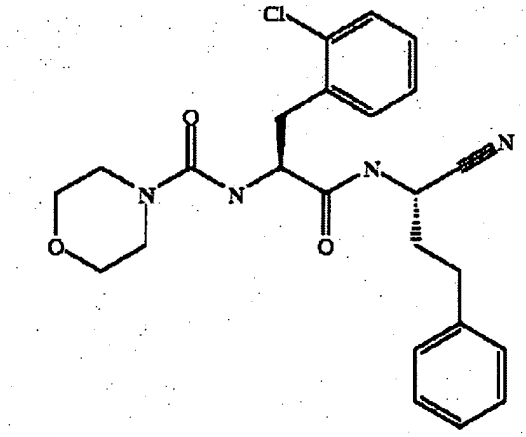
Claims 1, 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent NO. 6,395,897.

Determining the scope and contents of the prior art

US Patent NO. 6,395,897 discloses the compounds of the formula II/IIa which are useful as reversible inhibitors of the cysteine protease cathepsin S which are useful in the treatment of autoimmune diseases (column 1). Specifically, US Patent No. 6,395,897 discloses the compound formula II, column 68 wherein the position equivalent to applicants R4 can be, in the preferred compounds of formula II, H (column 86) and specific compounds which show a preference for the variable R9 are:



N-(4-morpholinecarbonyl)-L-(2-naphthyl)alanine (1S-cyano-3-phenylpropyl)amide;



N-(4-morpholinecarbonyl)-L-(2-chlorophenyl)alanine (1S-cyano-3-phenylpropyl)amide;

found in claim 12 wherein R9 s C(6-12)aryl(C1-6)alkyl and the compounds:

Ascertaining the differences between the prior art and the claims at issue.

The difference between the prior art and the claims at issue is the combination of the substituent R9 on applicants instantly claimed compounds of claims 1, 8 and 14 wherein R9 is C(6-12)aryl(C1-6)alkyl, such as benzyl optionally substituted with, for example halogen and R4 being hydrogen. The prior art compounds of formula (II)

generically encompass applicants instantly claimed elected invention, however the prior art does not prepare a specific compound within applicants instant elected invention of claims 1, 8 and 14. However, the prior art does prepare compounds which show preferences towards the variable R9 is C(6-12)aryl(c1-6)alkyl as shown above and has preferences for R4 as hydrogen, see column 86.

Resolving the Level of Ordinary Skill in the Art

However, minus a showing of unobvious results, it would have been obvious to one of ordinary skill in the art at the time of the invention to prepare applicants instant invention wherein R9 is (C6-12)aryl(C1-6)alkyl optionally substituted by 1 to 5 radicals such as (C1-6)alkyl and halogen and R4 is hydrogen when faced with the prior art of US Patent No. 6395897 since the prior art discloses the compound of formula II which generically encompasses applicants instantly claimed compounds, since the prior art provides preferences in the form of formula II wherein the position equivalent to R4 is hydrogen and since the prior art provides specific compounds wherein R9 is C(6-12)aryl(C1-6)alkyl. The motivation would be the high expectation of preparing additional compounds which are useful as pharmaceutical compositions for the treatment of autoimmune diseases.

Claims 1, 8 and 14-16 are rejected under 35 USC 103(a) as being unpatentable over US Patent No. 6,353,017.

Determining the scope and contents of the prior art

US Patent NO. 6,353,017 discloses the compounds of the formula (I) column 2

which are inhibitors of cysteine proteases and are useful for the pharmaceutical treatment of diseases or medical conditions in which cathepsins are implicated (column 1). Specific compounds found in US Patent NO. 6,353,017 are, for example, the compound # 156 found on column 67 which corresponds to applicants instant invention wherein R1 is the group of formula (a), X1 is –C(O), R3 is hydrogen, R5 is hydrogen, R7 is hydrogen, R2 is hydrogen, R4 is hydrogen, R9 is (C1-6)alkyl and R11 is X5X6R18 wherein X5 is –C(O), X6 is a bond and R18 is morpholinyl; and the compound # 191 found on column 75 which corresponds to applicants instant invention wherein R1 is a group of formula (a), R2 is hydrogen, R3 and R4 are hydrogen, R5 is hydrogen, R9 is a group (C3-12)cycloalkyl(C0-6)alkyl, R7 is hydrogen and R11 is the group X5X6R18 wherein X5 is –C(O), X6 is a bond and R18 is morpholinyl. Furthermore, US Patent No. 6,353,017 discloses the preferred compound formula III wherein the position equivalent to applicants R9 can be aryl-loweralkyl and the patent discloses specific compounds, for example, compounds #159, 216, 217, 219, 220-231, and 240-248 wherein the position equivalent to applicants instant R9 is benzyl optionally substituted with halogen or lower alkyl.

Ascertaining the differences between the prior art and the claims at issue.

The difference between the prior art and the claims at issue is the substituent R9 on applicants instantly claimed compounds of claims 1, 8 and 14-16 wherein R9 is C(6-12)aryl(C1-6)alkyl, such as benzyl optionally substituted with, for example halogen. The prior art compounds of formula (I) generically encompass applicants instantly claimed elected invention, however the prior art does not prepare a specific compound within

applicants instant elected invention of claims 1, 8 and 14-17. However, the prior art does prepare compounds which show preferences towards the other variables, for example the compounds # 156 found on column 67 which corresponds to applicants instant invention wherein R1 is the group of formula (a), X1 is –C(O), R3 is hydrogen, R5 is hydrogen, R7 is hydrogen, R2 is hydrogen, R4 is hydrogen, and R11 is X5X6R18 wherein X5 is –C(O), X6 is a bond and R18 is morpholinyl; and # 191 found on column 75 which corresponds to applicants instant invention wherein R1 is a group of formula (a), R2 is hydrogen, R3 and R4 are hydrogen, R5 is hydrogen, R7 is hydrogen and R11 is the group X5X6R18 wherein X5 is –C(O), X6 is a bond and R18 is morpholinyl. The only difference between these compounds and applicants instantly claimed elected invention is R9. However, the prior art provides numerous preferences for preparing compounds wherein the position equivalent to R9 benzyl optionally substituted with halo, see examples, column 7 wherein the more preferred formula III, R33 can be aryl-lower alkyl and the specific compounds # 159, column 61 (R9 is benzyl), examples 216, 217 and 219 wherein R9 is benzyl substituted with chlorine or methyl, and further examples 220-231 R9 is benzyl substituted with methyl and 240-248 wherein R9 is benzyl substituted with two chlorines.

Resolving the Level of Ordinary Skill in the Art

However, minus a showing of unobvious results, it would have been obvious to one of ordinary skill in the art at the time of the invention to prepare applicants instant invention wherein R9 is (C6-12)aryl(C1-6)alkyl optionally substituted by 1 to 5 radicals such as (C1-6)alkyl and halogen when faced with the prior art of US Patent No.

6,353,017 since the prior art discloses the compound of formula I which generically encompasses applicants instantly claimed compounds, since the prior art provides preferences in the form of formula III wherein the position equivalent to R9 can be aryl-lower alkyl and since the prior art provides compounds which differ only by the position R9 and provide preferences towards R9 as benzyl optionally substituted by lower alkyl and halogen. The motivation would be the high expectation of preparing additional compounds which are useful as pharmaceutical compositions for the treatment of diseases in which which cathepsins are implicated.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rebecca L. Anderson whose telephone number is (571) 272-0696. Mrs. Anderson can normally be reached Monday through Friday 5:30AM to 2:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Joseph K. McKane, can be reached at (571) 272-0699.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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3/16/06

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